

# The Burden of Arthritis in Utah

2005



UTAH DEPARTMENT OF HEALTH  
Arthritis Program



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## Introduction

The word arthritis means inflammation of a joint and refers to over 100 different diseases and conditions. Symptoms of arthritis include pain, aching, stiffness, and swelling in or around a joint. Arthritis and its related disabilities cause an enormous burden for individuals with arthritis, their families, and the health care system. Arthritis is the most frequent cause of activity limitation and is also a significant cause of work-related disability.

## Executive Summary

The Utah Arthritis Program is pleased to present the 2005 Utah Arthritis Report, which describes the burden of self-reported arthritis in Utah. This is the second comprehensive report describing the burden of arthritis in Utah. The report presents 2002 and 2003 Behavioral Risk Factor Surveillance System (BRFSS) combined data.

Beginning in 2002, the Centers for Disease Control and Prevention (CDC) recommended that surveillance estimates should include only persons who reported a doctor or other health professional had told them they had arthritis. Additionally, CDC recommended that persons who were previously defined as having chronic joint symptoms, without a diagnosis, be counted separately as persons with “possible arthritis.”

The report also presents the 2004 Utah inpatient hospital discharge data that describe inpatient hospitalizations and hospital charges for patients with a primary diagnosis of arthritis. (Appendix A).

## Highlights

Based on the 2002-2003 Utah BRFSS survey data, Utah adults with arthritis are likely to be:

- older
- female
- overweight or obese
- less healthy mentally and physically, and
- less active

These data also revealed:

- Almost one in every four Utah adults, 18 and older (22.3%; or 365,000), reported arthritis.
- Self-reported arthritis ranges from 7.3 percent among 18 to 34-year-olds, to 57.2 percent among those 65 and over.
- Those with arthritis were almost four times as likely to report seven or more days of poor physical health in the past month, and 1.6 times as likely to report seven or more days of poor mental health in the past month than those without arthritis.
- Almost one in every three Utah adults (30.4%) with arthritis said it affected whether they were able to work, and the type and amount of work they did.
- Over half (53.8%) of those with arthritis were overweight or obese.
- 25.6% of Utah adults with arthritis were physically inactive, compared to one of twelve (15.9%) of adults without arthritis.
- 35.9% of Utah adults with arthritis also reported they limited their usual activities.

These data are key to understanding the prevalence of arthritis in Utah and its impact on adults with arthritis. The challenge now is to apply these data to public and clinical interventions in an attempt to reduce the prevalence and burden of arthritis.

## Definitions

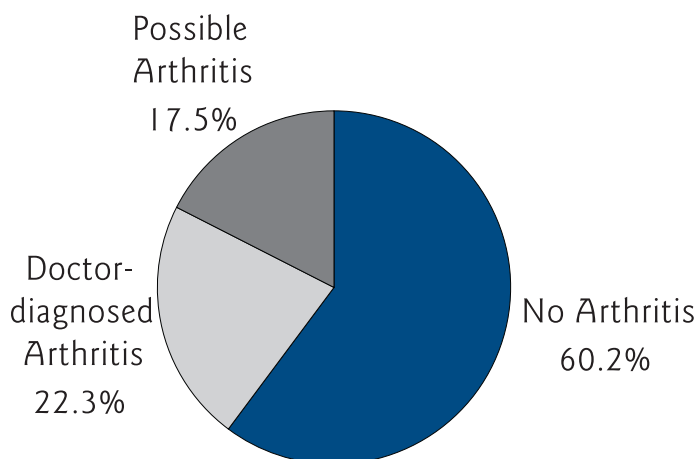
The CDC defines individuals with “arthritis” as those who report having been told by a doctor or other health professional they have some form of arthritis.

Individuals with “possible arthritis” are defined by CDC as adults who have symptoms of pain, aching or stiffness in or around a joint that began more than three months ago, but have not been told by a doctor or other health professional they have arthritis.

Almost one in every four Utah adults aged 18 and older (22.3%; or 365,000) reported having arthritis. In addition, about one in every five Utah adults aged 18 and older (17.5%; or 286,000) reported having possible arthritis. (See Figure 1.)

Beginning with the 2002 BRFSS data, CDC recommended surveillance estimates should focus on doctor-diagnosed arthritis. Therefore, arthritis refers to doctor-diagnosed arthritis in this report.

**Figure 1.**  
**Prevalence of Arthritis and Possible Arthritis\* Among Adults, Utah, 2002-2003**



**Source:** Utah BRFSS Survey

\* **Please note:** Unless otherwise stated, graphs and narrative in this report are based on the CDC case definitions.



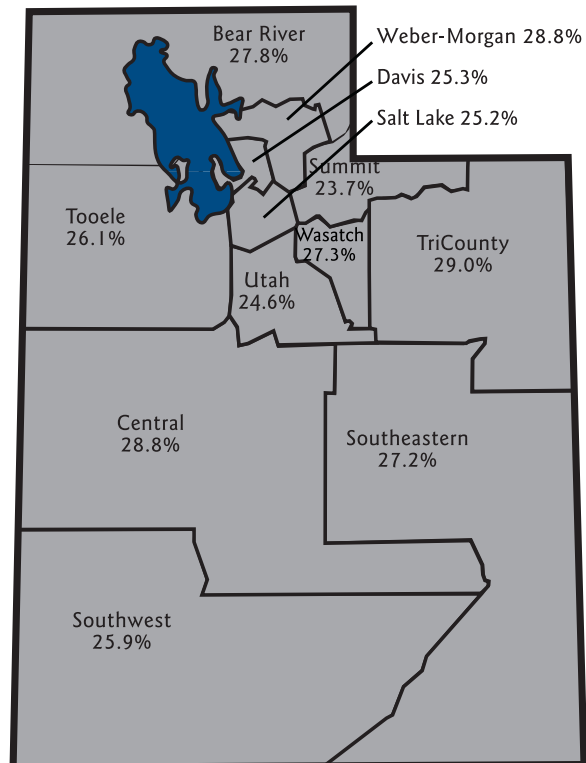
## Age-adjusted Prevalence of Arthritis

Because age affects the likelihood of having arthritis, it is beneficial to adjust for the effect of age when comparing populations. This method helps determine if a certain population has a factor, which contributes to arthritis prevalence more than the effect of age. After adjusting for age, the prevalence of arthritis in Utah (25.9 percent) nor in any of Utah's 12 local health districts was not statistically different than the rate in the U.S. (26.7 percent). The age-adjusted rates in the local health districts ranged from a low of 23.7 percent in the Summit County Health District to a high of 29.0 percent in the TriCounty Health District. (See Figure 2.)

## Prevalence of Arthritis by Age Group and Gender

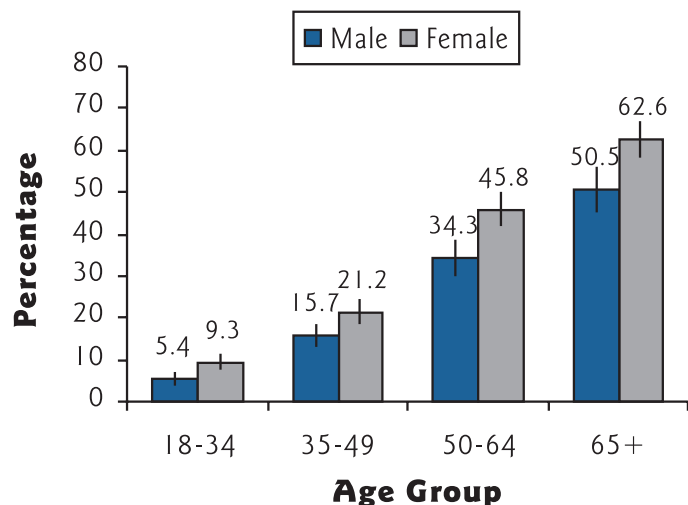
Although arthritis affects Utahns of all ages, some age groups are more likely to be affected. The prevalence of self-reported arthritis ranges from 7.3 percent among 18 to 34-year-olds, to 57.2 percent among those over 65. Clearly, arthritis prevalence increases significantly in men and women aged 50 to 64. It is also clear that Utah women were more likely to report arthritis for all age groups, especially from age 50 and up. (See Figure 3.)

**Figure 2.**  
Percentage of Adults Reporting Arthritis by Local Health District  
Utah, 2002-2003



Source: Utah BRFSS Survey  
Age-adjusted to the U.S. 2000 standard population

**Figure 3.**  
Prevalence of Arthritis by Age Group and Gender, Utah, 2002-2003



Source: Utah BRFSS Survey



## Health Status

Overall, Utah adults with arthritis were four times more likely to report fair or poor health than those without arthritis (24.1% vs. 6.1%). They were also much more likely to report seven or more days in the last month when their physical health was not good than those without arthritis (27.0% vs. 7.7%). (See Figure 4.)

Almost one in five (19.6%) Utah adults with arthritis reported seven or more days of poor mental health in the past month compared to one in eight adults (12.4%) without arthritis. (See Figure 4.)

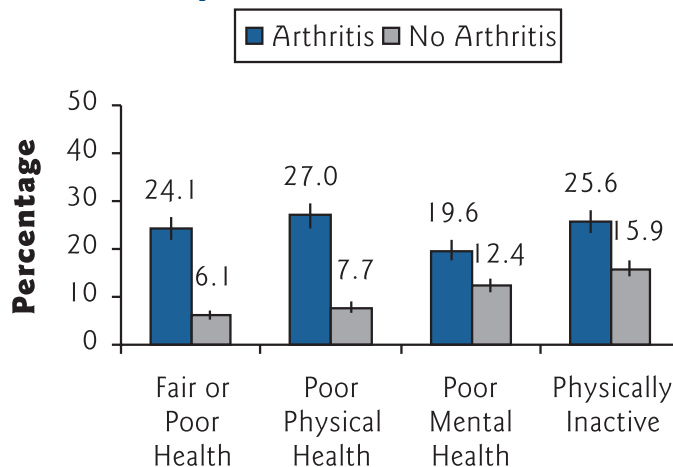
One in four Utah adults (25.6%) with arthritis reported being physically inactive compared to almost one in six Utah adults (15.9%) without arthritis. (See Figure 4.)

## Activity Limitation and Ability to Work

When asked if arthritis limited their activity, slightly more than one-third (35.9%) of Utah adults with arthritis reported limiting their usual activities. Almost one in three Utah adults (30.4%) with arthritis said it affected whether they were able to work, and the type and amount of work they did. (See Figure 5.)

**Figure 4.**

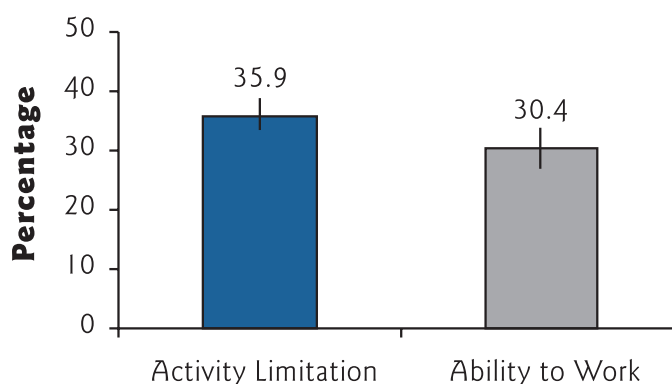
### Impact of Arthritis on Health-related Quality of Life, Utah, 2002-2003



Source: Utah BRFSS Survey

**Figure 5.**

### Impact of Arthritis on Limiting Activity and Ability to Work, Utah, 2002-2003



Source: Utah BRFSS Survey



## Arthritis Prevalence by Education Level

In Utah, adults with a high school education or less than a high school education were more likely to report arthritis (23.5%) than those with a college education (19.7%). Education is a modifiable risk factor for arthritis. It is not clear if modifying education level reduces the risk of arthritis.<sup>2</sup> (See Figure 6.)

## Weight Management

Maintaining an appropriate weight lowers the risk for arthritis. Weight management and weight loss are the most effective interventions for preventing joint diseases and disabilities.<sup>1</sup> Persons with arthritis were almost twice as likely to be obese. (See Figure 7.)

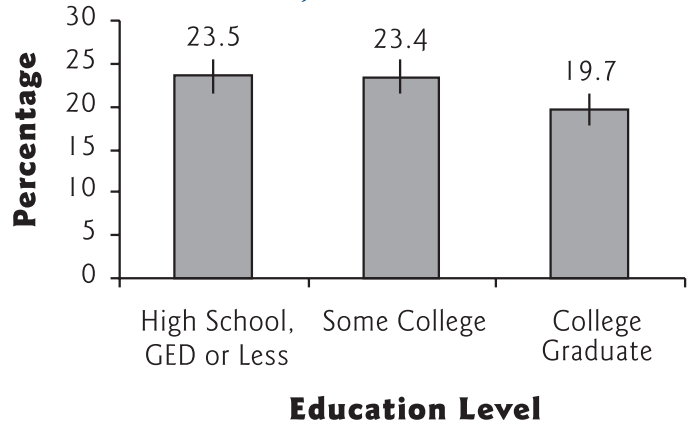
Among the 53.8% of overweight and obese persons with arthritis, 27.7% reported receiving counseling from their doctor or health care provider to lose weight.

## Physical Activity/Exercise

When asked if a doctor or other health care provider ever suggested physical activity or exercise to manage their arthritis, over half (53.1%) of adults with arthritis reported yes. Over half (54.5%) of overweight and obese adults were advised by their doctor or health care provider to participate in physical activity.

Figure 6.

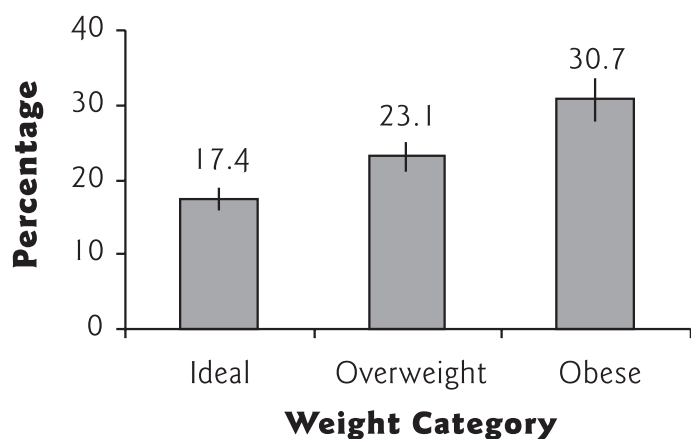
### Prevalence of Arthritis by Education Level, Utah, 2002-2003



Source: Utah BRFSS Survey

Figure 7.

### Prevalence of Arthritis by Weight Category, Utah, 2002-2003



Source: Utah BRFSS Survey

## Arthritis Self-Help Course

When asked if they had taken an educational course to help manage their arthritis, 14.8 percent of adults with arthritis reported they had, compared to 6.7 percent of adults with possible arthritis. This suggests providers may be missing opportunities to recommend self-help programs, or those with arthritis are more likely to use the arthritis self-help course to manage their arthritis, or those who seek out a diagnosis of arthritis are more likely to inquire about self-help courses.





## Opportunities for Action

To improve the health-related quality of life for Utah residents who cope with arthritis, the Utah Department of Health and Arthritis Foundation, Utah/Idaho Chapter have identified the following priorities:

- **Increase early diagnosis and appropriate medical management of arthritis.**

Although there is no cure for most types of arthritis, early diagnosis and appropriate management is important, especially for inflammatory types of arthritis. Early therapy for rheumatoid arthritis has been shown to decrease joint damage and improve outcomes. Patients with arthritis should be informed of their diagnosis to help them manage their disease and maintain a sense of control over their illness. Therefore, we must ensure that Utah adults are aware of support systems and resources for early diagnosis, treatment, management, and prevention of arthritis.

- **Promote healthy lifestyles.**

Public health activities that reach broad population groups with arthritis are needed. Evidence shows that physical activity improves health and function, and decreases arthritis symptoms for most people. The Utah Department of Health and Arthritis Foundation, Utah/Idaho Chapter will continue to promote activities that inform adults about arthritis and its relationship to overweight/obesity, and physical inactivity. In addition, physicians and other health professionals should promote healthy weight and regular, appropriate physical activity.

- **Increase the use of self-management strategies.**

Programs that teach people with arthritis how to better manage their disease and optimize function can reduce both pain and health care costs. Evidence shows that participation in the Arthritis Self-Help Course decreases pain by 18 percent and decreases physician visits by 40 percent. This beneficial effect remains even four years after participating in the course.<sup>3</sup> Therefore, the Utah Arthritis Program and the Arthritis Foundation, Utah/Idaho Chapter need to increase the number of Utahns who: know the signs and symptoms associated with arthritis; know there are appropriate self-management strategies that can relieve the pain, discomfort and disability associated with arthritis; and participate in the strategies.

## Conclusions

One in four Utah adults reported arthritis. Over half of adults with arthritis were overweight or obese. A majority of those with arthritis do not meet the CDC recommendations for physical activity and many were classified as inactive.

Through awareness, education, and action, concerns noted in this report can change. Adults with arthritis must learn about treatment options, attend self-management programs, participate in regular physical activity, and maintain appropriate body weight to relieve their symptoms.

This report illustrates the burden of arthritis in Utah. The challenge now is to apply public and private health care interventions to reduce the prevalence and burden of arthritis in Utah.



## References

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3. Harben, Kathy, Facts about the Cost-Effectiveness of the Arthritis Self-Help Course in Reducing Arthritis Pain. Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, *Archives of Internal Medicine*, Vol. 158, June 8, 1998.

## Appendix A

### Arthritis-related Inpatient Hospital Visits and Costs

Data from the 2004 Utah Hospital Inpatient Discharge Database confirm that arthritis is a major public health issue in Utah. There were 8,903 inpatient hospital visits with a primary diagnosis of arthritis in 2004, or 3.6 percent of all hospital visits. Osteoarthritis accounted for 6,914 hospital visits or over three-fourths (77.7%) of all hospital visits due to arthritis. The average inpatient length-of-stay for a patient with a primary diagnosis of arthritis was 4.1 days. Total charges for patients with a primary diagnosis of arthritis were \$198,084,632, and the average charge was \$22,623. Hospital visits and total charges

for arthritis-associated knee and hip replacements accounted for 5,902 hospital visits in 2004 for a total cost of \$148,051,698. (See Table 1.)

Age is associated with hospitalization of adults with arthritis. Persons 55 and older accounted for 79.0 percent of all arthritis-related hospital visits and knee and hip replacements due to arthritis. Total charges for persons 55 and older accounted for 80.0 percent of all hospital charges due to arthritis, and 84.6 percent of arthritis-associated knee and hip replacements. (See Table 2.)

**Table 1.**

#### Arthritis-related Inpatient Hospital Visits and Costs, Utah Residents, 2004

Diagnosis/Procedure	Hospital Visits*	Total Charges	Average Charge	Average Length of Stay
Arthritis	8,903	\$198,084,632	\$22,623	4.1 days
Knee Replacement	4,352	\$109,918,044	\$25,676	3.7 days
Hip Replacement	1,550	\$38,133,654	\$24,875	3.4 days

**Source:** 2004 Utah Inpatient Hospital Discharge Data, Office of Health Care Statistics, Utah Department of Health

\* Includes hospital visits with a primary diagnosis of arthritis using ICD-9 Codes 95.6 95.7 98.5 136.1 274 277.2 287.0 344.6 353.0 354 355.5 357.1 390.0 391.0 437.4 443.0 446 447.6 696.0 710 711 712 713.0 714 715 716.0-716.6 716.8-716.9 719.0 719.2-719.9 720 721 725 726 727 728.0-728.3 728.6-728.9 729.0-729.1 729.4

The ICD-9 Procedure Codes for Hip and Knee Replacements are 81.51 and 81.54, respectively

**Table 2.**

#### Arthritis-related Inpatient Hospital Visits and Costs, Utah Residents Age 55 and Older, 2004

Diagnosis/Procedure	Hospital Visits*	Total Charges	Average Charge	Average Length of Stay
Arthritis	7,029	\$158,490,744	\$22,936	4.2 days
Knee Replacement	3,693	\$93,788,896	\$25,780	3.7 days
Hip Replacement	1,289	\$31,456,833	\$24,711	3.5 days

**Source:** 2004 Utah Inpatient Hospital Discharge Data, Office of Health Care Statistics, Utah Department of Health

\* Includes hospital visits with a primary diagnosis of arthritis using ICD-9 Codes 95.6 95.7 98.5 136.1 274 277.2 287.0 344.6 353.0 354 355.5 357.1 390.0 391.0 437.4 443.0 446 447.6 696.0 710 711 712 713.0 714 715 716.0-716.6 716.8-716.9 719.0 719.2-719.9 720 721 725 726 727 728.0-728.3 728.6-728.9 729.0-729.1 729.4

The ICD-9 Procedure Codes for Hip and Knee Replacements are 81.51 and 81.54, respectively



## Appendix B

### Data Tables

**Table 3.**  
**Prevalence of Arthritis and Possible Arthritis**  
**Among Adults, Utah, 2002-2003**

	Percent	95% CI Range	
No Arthritis	60.2	58.7	61.7
Doctor-diagnosed Arthritis	22.3	21.2	23.5
Possible Arthritis	17.5	16.4	18.7

**Source:** Utah BRFSS Survey

**Table 4.**  
**Percentage of Adults Reporting Arthritis**  
**by Local Health District**  
**Utah, 2002-2003**

Health District	Percent	95% CI Range	
Bear River	27.8	24.2	32.0
Central Utah	28.8	25.2	32.9
Davis County	25.3	21.5	29.9
Salt Lake Valley	25.2	23.4	27.2
Southeastern	27.2	23.7	31.0
Southwest	25.9	22.4	29.8
Summit County	23.7	19.5	28.8
Tooele County	26.1	22.6	30.2
TriCounty	29.0	25.1	33.4
Utah County	24.6	21.6	28.1
Wasatch County	27.3	23.7	31.3
Weber-Morgan	28.8	25.1	33.0

**Source:** Utah BRFSS Survey

Age-adjusted to the U.S. 2000 standard population

**Table 5.**  
**Prevalence of Arthritis by Age Group**  
**and Gender, Utah, 2002-2003**

Male	Percent	95% CI Range	
18-34	5.4	4.0	7.2
35-49	15.7	13.1	18.7
50-64	34.3	30.2	38.9
65+	50.5	45.5	56.1
Female			
18-34	9.3	7.5	11.6
35-49	21.2	18.4	24.5
50-64	45.8	41.8	50.2
65+	62.6	58.4	67.2

**Source:** Utah BRFSS Survey

